MEASUREMENT TECHNOLOGIES

AMBIENT AIR AND METEOROLOGICAL MONITORING FOR TRUE GEOTHERMAL ENERGY COMPANY KILAUEA MIDDLE EAST RIFT ZONE, ISLAND OF HAWAII APRIL 1990 DATA REPORT

Submitted to:

Ms. Renee Taylor

True Geothermal Energy Company

Prepared by:

MEASUREMENT TECHNOLOGIES

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TABLE OF CONTENTS

Section		Page
1.0	Introduction	1-1
2.0	Operations Summary	2-1
2-1	Monthly Operations Summary	2-1
2-2	Downtime Summary	2-2
2-3	Major Activities	2-2
3.0	Data Summary	3-1
3-1	Air Quality/Meteorological Monitoring Data Site 1	3-2
3-2	Meteorological Monitoring Data Site 2	3-22

LIST OF TABLES

Table		Page
1-1	Monitored Parameters	1-2
3-1	Wind Direction Monthly Summary Site 1	3-3
3-2	Wind Speed Monthly Summary Site 1	3-4
3-3	Sigma Theta Monthly Summary Site 1	3-5
3-4	Ambient Temperature Monthly Summary Site 1	3-6
3-5	Precipitation Monthly Summary Site 1	3-7
3-6	Sulfur Dioxide Monthly Summary Site 1	3-8
3-7	Hydrogen Sulfide Monthly Summary Site 1	3-9
3-8	Rain Water Analyses Monthly Summary Site 1 April 17, 1990 thru April 30, 1990	3-10
3-9	Metals Filter Analyses April 5, 1990 Site 1	3-11
3-10	Metals Filter Analyses April 11, 1990 Site 1	3-12
3-11	Metals Filter Analyses April 17, 1990 Site 1	3-13
3-12	Metals Filter Analyses April 23, 1990 Site 1	3-14
3-13	Metals Filter Analyses April 29, 1990 Site 1	3-15
3-14	Total Suspended Particulates (TSP) and Inhaleable Particulates (PM-10) Loading Monthly Summary Site 1	3-16
3-15	Wind Direction Summary Statistics Site 1	3-18
3-16	Wind Speed Summary Statistics Site 1	3-18
3-17	Sigma Theta Summary Statistics Site 1	3-19
3-18	Ambient Temperature Summary Statistics Site 1	3-19
3-19	Precipitation Summary Statistics Site 1	3-20
3-20	Sulfur Dioxide Summary Statistics Site 1	3-20
3-21	Hydrogen Sulfide Summary Statistics Site 1	3-21

LIST OF TABLES (CONTINUED)

Table		Page
3-22	Wind Direction Monthly Summary Site 2	3-23
3-23	Wind Speed Monthly Summary Site 2	3-24
3-24	Sigma Theta Monthly Summary Site 2	3-25
3-25	Vertical Wind Speed Monthly Summary Site 2	3-26
3-26	Sigma W Monthly Summary Site 2	3-27
3-27	Wind Direction Summary Statistics Site 2	3-29
3-28	Wind Speed Summary Statistics Site 2	3-29
3-29	Sigma Theta Summary Statistics Site 2	3-30
3-30	Vertical Wind Speed Summary Statistics Site 2	3-30
3-31	Sigma W Summary Statistics Site 2	3-31

LIST OF FIGURES

Figure		Page
3-1	Wind Rose Analysis Site 1	3-17
3-2	Wind Rose Analysis Site 2	3-28

1.0 Introduction

Measurement Technologies has been contracted by True Geothermal Energy Company to conduct an air quality and meteorological monitoring program to support incremental exploration and development of the Kilauea Middle East Rift Zone Geothermal Resources Subzone (GRS), Puna District, Island of Hawaii. The data gathered in the monitoring program is being used in support of the exploration and possible development of the geothermal resource.

The monitoring program consists of two (2) monitoring sites. The first site (Site 1) is located in the Kaohe Homesteads area and the second site (Site 2) is located at the geothermal drilling and staging area D-1. The monitored parameters for each site are contained in Table 1-1. The sites are being operated consistent with the guidelines and requirements as outlined in the following documents:

- "Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)," U.S. EPA-450/4-80-012, November 1980.
- "Quality Assurance Handbook for Air Pollution Measurement Systems: Volume IV. Meteorological Measurements," U.S. EPA-600/4-82-060, February 1983.
- "Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II," Ambient Air Specific Methods, U.S. EPA-600/4-77-027a, May 1977.

As part of the monitoring program, Measurement will submit monthly and quarterly reports to True Geothermal Energy Company. The reports will contain the monitoring data, results of the quarterly quality assurance audits and results of quality control activities such as SO2 and H2S gas analyzer precision checks, level 1 and 2 checks and multipoint calibration results.

TABLE 1-1 Monitored Parameters

PARAMETER	SITE 1	SITE 2 (MET)
HYDROGEN SULFIDE (H2S)	X	8 PLS
SULFUR DIOXIDE (SO2)	X	
WIND DIRECTION	X	X
WIND SPEED	X	X
VERTICAL WINDS		X
SIGMA THETA	X	X
SIGMA W		X
TEMPERATURE	X	
PRECIPITATION	X	
RAIN WATER (ANIONS & DISSOLVED METALS)	3 PLS	
METALS (ATMOSPHERIC PARTICULATE)	X	
TOTAL SUSPENDED PARTICULATES (TSP)	X	
INHALEABLE PARTICULATES (PM-10)	X	
RADON		X

Section 2.0 of this report contains a operations narrative of significant events and activities that occurred during the month of March. Section 3.0 of this report contains the data collected during the month with graphical presentations and data capture summaries. The data is presented by site numbers and may also be referred to by name. Site 1 and 2 names are Air Quality/Met and Met Site, respectively.

2.0 Operations Summary

This section discusses the operations of the two monitoring sites and any significant events that may affect data quality. A downtime summary is also provided.

2.1 Monthly Operations Summary

Site 1 operations were routine for the month of April. Radon detection badges were installed on 4/9/90. Results of the first radon samples were exposed for the period 4/9/90-5/16/90. The results of the first analysis indicated an amount below the detectable limit for radon.

Due to insufficient rain water amounts, the samples collected during the 4/1-16/90 were combined with the 3/16-30/90 samples and the results were previously reported in the March data report. The rain water samples for the period 4/17-30/90 showed insignificant levels of concerned metals and compounds. Results of the water analyis are shown in Section 3.0, Table 3-8 of this report.

The metals filter analyses loadings and the particulate filter loadings for the month of April show insignificant concentrations and loadings for the compounds of interest in the program. The results are contained in Section 3.0, Tables 3-9 thru 3-13.

The continuous H2S and SO2 analyzers at Site 1 detected no SO2 or H2S levels during April.

Low levels of H2S were noted on the hydrogen sulfide dosimeters located around the Site 2 drill area on 4/19/90, 4/21/90, 4/22/90, 4/23/90, 4/24/90 and 4/25/90.

2.2 Downtime Summary

This section presents the down time summary by site. Down time is considered any time an analyzer or sensor is not collecting valid data. Down time includes calibration time, data lost due to data validation criteria such as insufficient data samples, sensors or analyzers operating outside of allowable limits, etc. Calibration and audit time and time lost due to maintenance and malfunctions is also considered down time.

Data capture at Site 1 was excellent in April, with all parameters exceeding 98 percent data capture, with the exception of SO2. SO2 data capture was 94 percent as a result of the loss of 26 hours of data on 4/15-16/90 due to a flame out of the analyzer. The 94 percent rate was well above the required 80 percent requirement for air quality parameters as outlined in the PSD guidelines. Site 2 also had excellent data capture in April with all parameters having 100 percent data capture.

2.3 Major Activities

No major activities took place in the month of April.

3.0 Data Summary

Section 3.0 contains monthly summary reports and statistic tables for all of the major monitored parameters. In addition, graphical wind rose plots, rain water analyses results, total suspended (TSP) and inhaleable (PM-10) particulate loading and metals analyses are also contained in this section. The data and associated graphical presentations are presented by site. Each sites data is organized and presented as follows:

- Monthly Summary Report containing the hourly values for each day of the month. Dashes contained in the place of any data signifies that the data falls into a down time category previously discussed in Section 2.0. An asterisk sign in the wind sigma theta signifies calm wind conditions.

- A graphical wind rose presentation will immediately follow the Monthly Summary Report. The wind rose displays a graphical presentation of the wind speed and direction at each site.

- Summary Statistic Tables containing the highest and second highest measured values, lowest value, arithmetic mean and standard deviation, data recovery rates and percentile breakdowns of measured values.

- TSP and PM-10 particulate data showing loading of each filter along with the elemental analyses of each metals filter (Site 1 only).

- Rain water analyses results showing each sample collected and the results of the metals elemental and anion analyses (Site 1 only).

3.1 Air Quality/Meteorological Monitoring Data Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 AQM TRUE WD (DEG) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	325	317	320	326	325	332	326	330	336	345	351	357	357	352	359	356	351	353	345	341	336	331	326	323
2	323	322	317	310	315	319	312	329	340	349	11	84	90	49	102	70	356	354	348	345	346	11	24	5
3	331	2	328	322	311	0	245	156	333	341	351	359	55	34	123	99	73	43	339	319	316	318	307	298
4	306	317	309	321	315	312	297	338	338	345	340	108	121	127	111	112	352	264	221	236	0	270	0	259
5	181	0	0	0	0	0	----	300	135	102	112	133	119	121	118	115	119	118	0	0	0	270	0	191
6	278	202	212	0	233	213	0	157	124	126	115	127	----	125	120	125	124	118	123	0	0	0	0	0
7	0	0	0	0	217	243	236	323	353	51	119	117	125	121	116	120	118	91	122	140	137	145	164	0
8	0	0	0	0	202	242	182	337	86	93	94	131	134	127	118	121	112	119	106	0	0	193	202	0
9	0	206	0	0	270	186	266	315	331	342	7	12	38	69	91	124	121	120	119	150	0	0	0	225
10	0	0	0	0	180	0	0	90	142	128	125	128	127	124	126	134	125	164	174	191	219	189	214	165
11	303	0	180	180	180	211	107	173	120	134	122	119	128	122	118	125	125	130	154	85	0	0	0	180
12	0	0	0	180	0	0	0	0	8	63	97	113	106	83	10	356	355	355	351	349	345	341	334	331
13	317	286	261	285	286	283	285	313	332	342	5	21	4	32	21	15	360	354	350	348	344	339	340	337
14	333	331	331	320	317	292	338	327	333	353	342	44	35	18	18	359	8	----	----	----	24	354	350	353
15	351	346	344	22	92	337	330	342	345	2	353	355	351	7	358	354	357	353	353	351	349	349	342	336
16	325	317	313	327	322	317	322	340	344	342	60	22	55	76	77	29	359	355	351	14	341	7	0	0
17	0	278	0	289	296	297	263	270	339	349	8	13	5	356	351	354	360	2	348	347	343	335	336	331
18	335	336	329	320	320	318	317	330	339	345	352	353	356	354	357	351	352	352	347	342	338	341	344	341
19	329	311	322	331	325	330	320	323	329	335	345	351	350	2	13	354	354	347	347	346	339	344	343	343
20	336	335	335	342	333	340	339	346	349	351	351	353	354	353	354	354	350	349	351	348	342	344	342	332
21	337	332	329	320	330	337	332	327	339	344	351	353	351	344	354	357	357	357	359	354	350	349	349	343
22	344	347	349	346	345	345	350	347	351	355	2	360	1	360	353	358	349	353	348	321	320	310	307	314
23	313	329	308	312	322	312	317	314	323	327	53	125	125	125	120	121	117	118	114	90	341	341	123	12
24	285	323	170	0	121	128	100	117	123	124	122	124	127	125	125	125	132	133	124	111	0	133	133	143
25	300	129	133	146	124	124	122	122	123	127	119	120	128	122	119	124	123	123	121	116	127	115	125	128
26	122	145	153	126	118	136	----	128	131	130	127	122	123	123	120	121	118	119	115	0	0	0	0	0
27	0	0	0	204	193	240	0	173	168	149	142	130	141	147	136	119	122	111	126	120	123	123	129	164
28	156	124	128	126	119	115	129	122	126	124	121	122	124	124	119	120	120	124	119	0	157	0	227	128
29	0	138	180	180	108	132	127	119	127	123	130	125	124	128	114	125	122	122	111	0	0	0	0	0
30	0	0	0	270	269	225	274	328	347	17	77	107	99	108	105	104	112	119	106	16	348	338	0	314

Table 3-1. Wind Direction Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 AQM TRUE WS (MPH) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	3.8	4.2	4.7	5.3	5.4	5.4	5.0	6.8	6.8	6.6	5.7	4.2	3.6	4.5	4.3	4.0	4.4	3.8	3.2	3.0	2.3	2.9	2.9	3.1
2	4.1	3.5	2.9	2.6	2.6	3.0	2.9	4.4	4.4	3.6	1.7	1.4	1.2	1.2	1.2	1.1	2.7	2.7	3.2	2.9	3.3	1.4	1.2	0.5
3	0.5	0.5	3.2	3.8	2.2	0.0	0.0	0.2	1.7	2.6	1.8	1.7	1.0	1.1	0.9	1.1	0.4	0.3	4.4	4.0	3.8	4.1	1.9	0.0
4	0.1	1.1	2.4	1.8	3.4	1.4	0.4	2.1	2.5	1.6	2.2	1.2	1.3	2.2	0.9	0.7	0.8	0.1	0.1	0.1	0.0	0.0	0.0	0.1
5	0.3	0.0	0.0	0.0	0.0	0.0	----	0.2	0.3	1.3	1.7	2.6	1.9	2.2	1.9	1.7	1.1	0.6	0.0	0.0	0.0	0.1	0.0	0.1
6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.7	3.3	3.2	3.4	----	3.4	3.5	3.1	2.6	1.4	0.4	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1	0.7	2.1	3.1	3.6	3.1	3.1	2.8	2.1	1.1	0.6	0.5	0.3	0.5	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.9	0.7	3.5	3.4	3.9	3.2	2.8	2.1	1.5	0.3	0.0	0.0	0.1	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.0	2.2	3.8	1.4	1.0	1.2	1.3	1.4	2.9	2.5	1.9	0.3	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.0	3.7	3.4	3.5	3.3	2.7	1.7	1.2	0.7	1.0	0.2	0.2	0.6	0.1	0.0
11	0.2	0.0	0.1	0.1	0.0	0.1	0.1	0.2	0.7	0.9	1.8	2.8	2.7	3.5	3.3	3.1	2.4	1.4	0.3	0.1	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.8	2.1	2.0	1.3	2.4	2.5	3.6	2.5	3.2	3.3	3.1	2.8	3.9	2.9
13	1.6	0.1	0.0	0.4	0.0	0.3	0.6	1.9	4.5	4.7	1.4	1.8	2.3	2.1	2.1	1.9	3.2	3.7	3.3	3.3	2.5	1.7	2.8	3.2
14	3.7	4.4	4.0	2.3	0.4	0.4	0.3	1.1	3.8	1.4	4.7	1.0	1.3	1.6	1.9	2.3	2.1	----	----	----	0.9	2.6	2.1	1.4
15	1.2	1.5	0.6	0.0	0.1	0.1	2.2	4.0	4.7	2.4	2.9	2.7	2.9	3.1	3.3	3.8	3.8	2.9	2.3	2.9	3.1	1.7	3.8	3.4
16	2.3	1.4	1.8	2.3	2.7	2.1	2.0	2.4	3.0	3.0	1.4	1.8	0.8	1.7	1.8	1.1	1.9	1.9	1.3	0.3	1.1	0.1	0.0	0.0
17	0.0	0.1	0.0	0.0	0.1	0.2	0.1	0.0	3.4	3.8	2.0	2.1	2.1	3.1	3.9	2.8	2.5	2.5	2.7	2.4	2.4	2.6	1.3	2.2
18	3.4	4.3	3.7	3.7	3.9	3.0	3.1	3.5	6.0	5.6	4.7	4.1	4.3	4.6	4.5	4.3	3.3	4.2	3.6	3.8	3.8	4.2	4.5	3.6
19	3.3	2.9	4.0	2.8	3.7	3.4	4.0	1.6	4.1	5.4	5.1	4.4	4.2	2.5	2.4	3.8	4.1	5.0	2.6	2.1	1.4	0.4	0.5	0.5
20	2.1	2.3	4.0	4.1	3.9	4.2	3.7	4.2	5.1	4.9	5.4	4.9	5.1	5.5	5.0	4.9	6.8	5.9	5.0	5.1	5.0	4.4	4.7	4.0
21	4.3	4.3	4.6	4.1	4.9	3.9	5.4	5.8	7.7	6.6	6.4	5.5	5.3	7.1	4.7	3.6	3.2	3.9	3.1	2.5	3.2	4.0	2.1	1.9
22	3.5	2.3	2.8	2.6	1.3	1.9	2.4	4.0	5.2	4.6	3.6	3.7	3.0	3.7	4.1	4.4	3.9	3.8	2.4	1.2	2.9	1.4	1.9	2.8
23	2.6	2.4	2.3	2.6	2.7	2.5	2.0	1.2	3.1	3.2	0.7	1.8	3.3	3.7	2.7	2.6	1.6	1.4	0.4	0.0	0.7	0.5	0.2	0.3
24	0.1	0.0	0.2	0.3	1.3	1.3	0.3	1.7	2.3	2.5	2.8	3.1	3.6	3.3	4.1	3.6	2.2	0.9	1.3	0.0	0.0	1.3	0.8	0.4
25	0.0	0.7	0.3	0.4	0.5	0.4	0.6	2.6	2.1	2.3	2.7	3.1	4.0	3.5	2.9	3.2	2.7	1.4	0.1	0.5	0.8	0.8	1.6	1.5
26	1.6	0.3	0.7	0.8	1.1	0.3	----	0.7	1.5	1.9	2.0	3.4	3.3	3.9	4.0	3.7	2.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	1.3	1.8	2.6	3.4	2.8	2.5	2.6	4.0	3.2	1.6	1.0	1.3	1.1	0.5	0.4	0.3
28	0.4	0.4	1.3	1.5	1.3	1.8	0.6	0.7	1.1	1.9	3.2	3.1	3.0	3.1	3.3	2.8	2.5	2.5	1.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.1	0.0	0.0	0.2	0.3	0.6	0.6	2.4	2.9	3.4	3.6	3.8	3.3	2.9	3.5	3.1	2.4	0.3	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.4	1.4	0.8	1.0	1.5	1.4	2.2	2.5	2.0	2.1	1.8	0.2	0.1	0.0	0.0	0.0	0.1

Table 3-2. Wind Speed Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 AQM TRUE Sigθ1 (deg) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	14.3	15.8	15.4	15.5	15.8	17.7	17.7	17.0	18.6	24.3	37.9	52.6	56.1	52.1	55.5	59.1	46.1	42.8	32.0	21.3	18.2	16.6	15.7	16.0
2	14.7	16.5	17.0	18.6	19.2	17.1	19.2	16.9	32.9	42.2	67.5	78.0	79.6	79.8	78.4	77.8	48.9	46.3	28.5	18.7	28.6	67.3	63.6	56.6
3	35.1	50.4	23.6	16.0	32.2	67.0	89.9	60.5	46.2	27.1	66.3	65.4	69.5	74.5	65.9	75.6	70.7	70.8	22.3	16.1	17.0	16.0	29.8	76.9
4	74.0	91.8	24.6	28.4	19.1	29.2	60.2	27.4	46.5	56.6	42.9	65.8	60.0	48.2	69.0	58.7	52.1	60.5	59.4	82.0	****	87.7	****	84.9
5	43.4	97.6	****	97.6	****	****	----	77.8	84.1	65.8	59.8	46.7	50.9	57.1	62.1	54.7	55.8	44.0	****	97.6	97.6	97.6	97.6	46.8
6	****	73.7	72.5	97.6	28.1	74.8	97.6	****	44.8	40.1	52.6	49.0	----	43.0	44.3	39.5	37.4	43.0	39.7	97.6	97.6	97.6	****	97.6
7	97.6	97.6	97.6	97.6	****	33.6	38.5	64.2	50.3	70.4	61.8	55.4	43.5	52.0	54.4	46.6	50.7	70.4	41.3	41.6	48.3	45.4	81.1	97.6
8	97.6	97.6	97.6	97.6	****	93.5	****	74.5	85.2	77.5	53.6	40.4	48.3	44.8	54.9	49.5	47.0	43.7	70.7	97.6	97.6	92.7	****	97.6
9	97.6	95.0	****	97.6	****	****	88.9	31.7	22.0	27.9	70.8	74.6	82.2	70.1	75.4	56.4	55.8	44.9	71.3	97.6	97.6	97.6	97.6	81.9
10	97.6	97.6	97.6	****	****	97.6	97.6	97.6	63.6	56.2	42.8	53.8	56.0	56.5	63.2	71.2	79.8	85.1	83.6	88.4	92.1	78.4	83.5	96.5
11	88.2	97.6	88.3	72.0	84.9	73.5	77.0	90.0	63.7	69.1	50.4	46.5	51.4	47.7	47.3	41.5	47.7	54.3	81.8	92.8	****	****	97.6	97.6
12	97.6	97.6	97.6	****	97.6	97.6	97.6	****	****	78.1	75.0	64.2	66.2	74.7	67.5	66.8	47.3	49.9	31.2	25.8	21.5	19.4	17.0	18.3
13	23.2	42.3	69.3	30.3	75.2	51.4	34.1	28.0	17.2	22.7	75.7	68.6	72.5	71.0	65.4	72.9	50.9	42.7	29.6	23.0	22.0	22.1	22.0	19.0
14	16.5	16.5	16.8	24.5	75.9	39.7	89.3	67.1	21.2	53.9	23.4	77.2	76.1	69.6	68.7	68.6	62.2	----	----	----	67.6	41.9	47.2	57.1
15	47.9	31.3	34.2	58.0	77.2	28.4	14.6	18.8	20.3	58.6	47.2	63.8	56.6	59.4	58.7	48.9	53.2	55.6	59.4	43.7	30.3	39.7	19.1	18.3
16	15.2	15.8	18.6	19.3	16.9	22.3	17.9	21.2	32.5	52.2	87.8	76.4	84.1	73.5	75.3	80.3	66.0	62.9	57.2	58.4	52.9	94.0	****	97.6
17	****	55.9	****	49.9	56.0	54.8	46.2	87.4	27.6	29.7	63.6	65.7	68.7	55.0	46.1	60.3	63.7	56.9	41.7	37.2	27.1	17.2	20.9	15.7
18	16.8	17.6	16.9	15.0	16.0	18.6	15.4	16.8	19.2	34.5	45.5	53.4	50.5	53.8	53.8	46.1	55.1	42.7	35.6	17.9	19.6	18.8	20.4	19.8
19	16.3	19.9	17.5	35.1	16.4	17.9	15.9	43.8	15.9	19.3	24.5	38.5	41.9	64.2	65.9	49.5	44.3	25.9	26.4	35.0	28.9	22.4	27.3	24.3
20	18.8	15.8	17.6	20.1	16.6	20.2	19.1	22.5	25.3	38.9	41.0	54.7	49.8	46.5	51.8	50.6	32.6	27.0	33.1	24.9	19.3	19.4	20.3	17.1
21	17.6	15.9	15.2	18.1	16.6	20.2	19.4	17.1	20.4	29.1	37.1	46.2	41.3	26.2	43.5	56.5	57.0	53.4	54.2	56.7	45.0	30.6	41.1	36.2
22	29.5	33.4	33.5	31.8	31.7	29.7	31.9	35.3	47.8	52.6	64.0	64.2	72.0	62.0	57.0	52.7	50.4	49.2	43.2	32.6	26.0	18.7	23.8	14.7
23	19.7	21.8	23.4	22.0	21.8	34.7	30.6	35.3	23.0	21.9	73.4	68.4	51.6	47.6	57.0	58.7	71.8	60.9	71.3	****	95.9	76.9	74.1	70.6
24	73.2	66.5	60.8	79.1	70.2	49.2	71.7	59.9	49.6	50.6	53.7	55.8	44.3	42.9	43.8	42.3	48.5	67.1	45.5	97.6	97.6	45.4	87.6	69.2
25	****	42.4	48.7	68.4	72.5	52.6	58.4	44.9	47.1	54.2	48.9	50.7	44.5	49.6	51.6	49.2	51.6	55.6	83.6	71.9	61.8	48.4	56.4	50.7
26	53.2	78.6	74.3	63.1	58.7	71.4	----	98.8	53.2	52.6	58.3	44.8	44.1	38.9	45.5	44.9	52.2	65.7	82.4	85.7	97.6	97.6	****	97.6
27	97.6	97.6	85.0	****	46.8	69.1	****	97.6	63.6	61.6	53.3	55.4	65.3	63.3	58.3	44.6	49.8	44.8	59.1	40.8	40.8	67.1	76.4	59.7
28	82.7	90.2	57.1	57.5	48.8	42.6	53.7	53.9	50.7	41.6	40.5	47.0	51.2	45.9	46.5	50.3	51.7	41.5	39.4	****	97.6	97.6	****	97.6
29	97.6	****	99.2	98.3	64.6	38.9	52.5	46.1	36.9	43.0	42.3	46.1	45.0	56.2	55.0	51.2	51.5	45.2	93.3	97.6	97.6	97.6	****	97.6
30	****	97.6	****	90.0	46.0	59.7	41.1	38.5	42.9	70.3	71.5	69.8	74.2	68.8	66.9	69.8	66.5	61.1	85.6	90.9	70.8	48.4	****	86.8

Table 3-3. Sigma Theta Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 AQM TRUE TEMP (DEG F) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	62	61	61	61	61	61	60	61	64	65	68	69	71	72	72	72	70	68	66	64	64	63	63	63
2	62	63	62	62	62	62	62	66	69	71	73	75	74	74	75	74	71	68	66	65	65	64	64	63
3	63	63	62	62	62	62	63	63	65	67	69	67	70	68	67	66	65	65	63	62	62	62	62	61
4	62	62	62	62	62	61	61	67	68	69	70	71	70	68	67	66	66	64	63	62	61	61	61	60
5	59	59	59	59	59	59	----	71	72	70	69	68	69	70	70	69	68	67	65	64	64	62	63	63
6	63	62	61	60	60	59	62	74	70	72	73	73	----	70	71	70	69	68	66	64	64	62	62	61
7	61	61	60	60	59	60	60	67	70	73	74	74	74	74	73	71	70	68	66	66	65	65	64	63
8	62	62	63	61	60	60	62	73	72	74	74	75	76	76	75	73	71	69	68	66	64	64	64	64
9	63	62	62	62	62	62	60	66	70	72	75	77	77	77	76	75	72	70	68	66	65	64	63	63
10	63	62	62	62	62	62	62	67	73	74	75	76	76	76	76	75	74	72	69	68	68	68	68	68
11	68	68	67	67	67	67	68	69	71	73	73	75	75	77	77	75	73	72	70	69	69	69	68	67
12	67	67	66	67	67	66	66	74	76	77	78	80	81	81	81	78	76	74	70	69	69	69	69	68
13	68	67	66	65	65	65	65	68	70	73	78	79	80	80	80	78	75	73	70	69	68	68	68	68
14	68	68	67	67	67	67	67	68	69	70	71	75	75	76	76	74	73	----	----	----	69	68	68	68
15	67	67	67	66	66	66	66	69	69	72	71	75	74	73	73	71	69	69	68	67	67	67	66	65
16	65	65	65	65	65	65	65	67	69	71	75	75	76	75	76	75	74	71	68	67	67	66	65	64
17	63	63	63	63	64	63	64	65	70	71	73	75	76	74	75	73	72	70	68	68	67	66	66	65
18	65	65	64	64	64	64	64	66	67	71	73	74	75	75	75	73	73	70	68	66	66	66	66	65
19	64	64	64	64	64	64	64	65	66	68	69	71	70	72	72	71	68	66	66	66	66	66	66	66
20	66	66	65	65	65	65	66	67	68	70	72	73	74	74	73	73	69	68	68	67	66	66	66	65
21	65	64	64	64	64	64	64	66	70	71	73	73	70	69	69	71	70	69	68	67	67	67	66	66
22	66	66	65	65	65	65	65	67	69	71	73	74	76	76	75	74	73	71	67	65	65	65	65	65
23	64	64	64	64	64	63	63	64	66	67	70	71	72	74	74	75	74	70	68	66	66	67	66	66
24	65	65	65	66	66	66	67	69	72	73	74	74	74	75	76	74	71	69	68	67	67	67	67	66
25	66	67	67	67	67	67	67	68	71	71	73	72	73	74	74	75	74	73	69	69	69	69	69	68
26	68	68	67	67	68	68	----	72	71	71	70	71	71	72	74	75	74	71	69	68	67	66	65	64
27	65	64	64	64	64	64	66	73	75	77	78	78	79	80	80	77	74	71	69	69	69	68	68	68
28	67	68	68	68	67	67	67	69	72	72	73	75	76	75	75	75	74	71	69	68	67	67	67	67
29	67	67	67	67	67	67	69	70	71	74	76	77	77	77	77	76	75	74	69	66	65	65	66	65
30	64	64	64	64	63	63	63	71	71	74	75	77	78	77	77	76	75	72	69	67	67	67	66	66

Table 3-4. Ambient Temperature Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 AQM TRUE RAIN (INCH) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.08	0.02	0.05	0.01	0.03	0.00	0.17	0.00	0.00	0.07	0.03	0.00	0.13	0.02	0.08	0.01	0.00	0.07	0.01	0.02	0.00	0.00	0.00
4	0.00	0.06	0.16	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.02	0.00	----	0.00	0.00	0.00	0.01	0.01	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.06	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	----	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.07	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.01	0.06	0.01	0.00	0.00	0.01
20	0.01	0.00	0.01	0.03	0.04	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
23	0.00	0.01	0.00	0.02	0.04	0.04	0.05	0.13	0.03	0.05	0.07	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.01	0.00	0.06
24	0.04	0.08	0.11	0.08	0.06	0.21	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.01	0.01	0.03	0.00	0.02
25	0.02	0.01	0.00	0.05	0.01	0.00	0.04	0.00	0.00	0.02	0.00	0.04	0.00	0.01	0.00	0.00	0.00	0.04	0.00	0.04	0.01	0.04	0.02	0.13
26	0.02	0.06	0.03	0.13	0.03	0.14	----	0.00	0.03	0.22	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.01	0.01	0.08
28	0.12	0.04	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.02	0.02	0.05	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
30	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 3-5. Precipitation Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 AQM TRUE SO2 (PPB) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	----	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	----	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	5	4	16	5	4	7	3	1	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	2	4	16	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	----	----	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	----	----	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
16	----	----	----	----	----	----	----	----	----	----	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	----	----	----	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	----	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	----	0	0	0	0	0	0	----	----	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	----	0	0	0	0

Table 3-6. Sulfur Dioxide Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 AQM TRUE H2S (PPB) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	----	----	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	----	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	----	----	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	----	----	----	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	----	0	0	0	0	0	0	----	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	----	----	0	0	0

Table 3-7. Hydrogen Sulfide Monthly Summary Site 1

HECO ENVIRONMENTAL LABORATORY
ENVIRONMENTAL DEPARTMENT
Rainwater Analysis Report

Report Date: June 14, 1990

Site: True/Geothermal
Pahoa, Hawaii

Sample Date: 4/1/90 - 5/1/90
(Recd. 5/22/90)

Parameter	Concentration (ug/l) True 1-9	True 2-9	True 3-9
pH	4.35	4.30	4.40
Aluminum	<10.0	10.0	10.0
Arsenic	<5.0	<5.0	<5.0
Barium	<20.0	<20.0	<20.0
Cadmium	<1.0	<1.0	<1.0
Chromium	<4.0	<4.0	<4.0
Copper	<10.0	<10.0	12.9
Iron	<10.0	<10.0	<10.0
Lead	<5.0	<5.0	<5.0
Magnesium	410	415	420
Manganese	<2.0	<2.0	<2.0
Mercury	<0.50	<0.50	<0.50
Selenium	<5.0	<5.0	<5.0
Silver	<2.0	<2.0	<2.0
Sodium	3,480	3,730	3,700
Zinc	<10.0	<10.0	<10.0
Bromide	<50	<50	<50
Chloride	5,430	5,620	6,650
Fluoride	78	103	173
Phosphate	<61	<61	<61
Nitrite	<4	<4	<4
Nitrate	<13	<13	<13
Sulfate	1,420	1,320	1,470
Sulfite	<150	<150	<150

Analyzed by: CK GK
C. Kishimoto/G. Kitsuwa

Approved by:
George Yasutome
Senior Chemist

Table 3-8. Rain Water Analyses Monthly Summary Site 1
04/17/90-04/30/90

295/01-006 PROTOCOL: 5 SA

SAMPLE ID: MZ161
PARTICLE SIZE: C
ANALYSIS ID: MZ161
04/05/90
EXPOSED AREA: 12.80 SQUARE CM
MASS OF DEPOSIT: 32.+- 10. MICROGRAMS

ELEMENT	UG/CM2	UG/FILTER	PERCENT
AL	.0000+- .0046	.000+- .059	.0000+- .1840
SI	.0260+- .0044	.333+- .056	1.0400+- .3696
P	.0000+- .0017	.000+- .022	.0000+- .0680
S	.0349+- .0095	.447+- .122	1.3960+- .5785
CL	.1087+- .0140	1.391+- .179	4.3480+- 1.4696
K	.0042+- .0023	.054+- .029	.1680+- .1059
CA	.0074+- .0017	.095+- .022	.2960+- .1148
TI	.0000+- .0007	.000+- .009	.0000+- .0280
V	.0004+- .0005	.005+- .006	.0160+- .0206
CR	.0004+- .0005	.005+- .006	.0160+- .0206
MN	.0000+- .0007	.000+- .009	.0000+- .0280
FE	.0184+- .0017	.236+- .022	.7360+- .2398
NI	.0018+- .0006	.023+- .008	.0720+- .0329
CU	.0028+- .0006	.036+- .008	.1120+- .0424
ZN	.0010+- .0004	.013+- .005	.0400+- .0203
GA	.0000+- .0004	.000+- .005	.0000+- .0160
AS	.0001+- .0014	.001+- .018	.0040+- .0560
SE	.0005+- .0006	.006+- .008	.0200+- .0248
BR	.0000+- .0007	.000+- .009	.0000-- .0280
RB	.0000+- .0010	.000+- .013	.0000+- .0400
SR	.0000+- .0011	.000+- .014	.0000+- .0440
Y	.0000+- .0013	.000+- .017	.0000+- .0520
ZR	.0008+- .0029	.010+- .037	.0320+- .1164
MO	.0094+- .0049	.120+- .063	.3760+- .2285
PD	.0046+- .0044	.059+- .056	.1840+- .1852
AG	.0000+- .0058	.000+- .074	.0000+- .2320
CD	.0252+- .0076	.323+- .097	1.0080+- .4378
IN	.0000+- .0092	.000+- .118	.0000+- .3680
SN	.0000+- .0109	.000+- .140	.0000+- .4360
SB	.0162+- .0143	.207+- .183	.6480+- .6068
BA	.0644+- .0688	.824+- .881	2.5760+- 2.8673
LA	.0000+- .1149	.000+- 1.471	.0000+- 4.5960
HG	.0005+- .0009	.006+- .012	.0200+- .0365
PB	.0000+- .0026	.000+- .033	.0000+- .1040

Table 3-9. Metals Filter Analyses April 5, 1990 Site 1

295/01-006 PROTOCOL: 5 SA

SAMPLE ID: MZ162
PARTICLE SIZE: C
ANALYSIS ID: MZ162
04/11/90
EXPOSED AREA: 12.80 SQUARE CM
MASS OF DEPOSIT: 30.+- 10. MICROGRAMS

ELEMENT	UG/CM2	UG/FILTER	PERCENT
AL	.0000+- .0047	.000+- .060	.0000+- .2005
SI	.0117+- .0033	.150+- .042	.4992+- .2180
P	.0000+- .0018	.000+- .023	.0000+- .0768
S	.1061+- .0168	1.358+- .215	4.5269+- 1.6706
CL	.2068+- .0249	2.647+- .319	8.8235+- 3.1272
K	.0049+- .0025	.063+- .032	.2091+- .1274
CA	.0068+- .0017	.087+- .022	.2901+- .1209
TI	.0019+- .0008	.024+- .010	.0811+- .0435
V	.0003+- .0006	.004+- .008	.0128+- .0260
CR	.0017+- .0006	.022+- .008	.0725+- .0352
MN	.0005+- .0007	.006+- .009	.0213+- .0307
FE	.0181+- .0017	.232+- .022	.7723+- .2674
NI	.0020+- .0007	.026+- .009	.0853+- .0412
CU	.0044+- .0006	.056+- .008	.1877+- .0676
ZN	.0010+- .0005	.013+- .006	.0427+- .0256
GA	.0000+- .0004	.000+- .005	.0000+- .0171
AS	.0001+- .0015	.001+- .019	.0043+- .0640
SE	.0000+- .0006	.000+- .008	.0000+- .0256
BR	.0000+- .0007	.000+- .009	.0000+- .0299
RB	.0001+- .0010	.001+- .013	.0043+- .0427
SR	.0000+- .0011	.000+- .014	.0000+- .0469
Y	.0000+- .0013	.000+- .017	.0000+- .0555
ZR	.0028+- .0030	.036+- .038	.1195+- .1341
MO	.0000+- .0050	.000+- .064	.0000+- .2133
PD	.0000+- .0046	.000+- .059	.0000+- .1963
AG	.0000+- .0060	.000+- .077	.0000+- .2560
CD	.0000+- .0075	.000+- .096	.0000+- .3200
IN	.0139+- .0097	.178+- .124	.5931+- .4587
SN	.0129+- .0113	.165+- .145	.5504+- .5159
SB	.0274+- .0147	.351+- .188	1.1691+- .7384
BA	.0000+- .0698	.000+- .893	.0000+- 2.9781
LA	.0000+- .1169	.000+- 1.496	.0000+- 4.9877
HG	.0000+- .0009	.000+- .012	.0000+- .0384
PB	.0026+- .0026	.033+- .033	.1109+- .1169

Table 3-10. Metals Filter Analyses April 11, 1990 Site 1

295/01-006 PROTOCOL: 5 SA

SAMPLE ID: MZ163
PARTICLE SIZE: C
ANALYSIS ID: MZ163
04/17/90
EXPOSED AREA: 12.80 SQUARE CM
MASS OF DEPOSIT: 37.+- 10. MICROGRAMS

ELEMENT	UG/CM2		UG/FILTER		PERCENT	
AL	.0000+-	.0046	.000+-	.059	.0000+-	.1591
SI	.0298+-	.0049	.381+-	.063	1.0309+-	.3261
P	.0000+-	.0018	.000+-	.023	.0000+-	.0623
S	.0427+-	.0106	.547+-	.136	1.4772+-	.5421
CL	.2585+-	.0305	3.309+-	.390	8.9427+-	2.6372
K	.0117+-	.0028	.150+-	.036	.4048+-	.1461
CA	.0149+-	.0023	.191+-	.029	.5155+-	.1604
TI	.0044+-	.0008	.056+-	.010	.1522+-	.0496
V	.0001+-	.0006	.001+-	.008	.0035+-	.0208
CR	.0019+-	.0006	.024+-	.008	.0657+-	.0273
MN	.0000+-	.0006	.000+-	.008	.0000+-	.0208
FE	.0250+-	.0020	.320+-	.026	.8649+-	.2438
NI	.0009+-	.0006	.012+-	.008	.0311+-	.0224
CU	.0039+-	.0006	.050+-	.008	.1349+-	.0420
ZN	.0007+-	.0004	.009+-	.005	.0242+-	.0153
GA	.0002+-	.0004	.003+-	.005	.0069+-	.0140
AS	.0000+-	.0014	.000+-	.018	.0000+-	.0484
SE	.0000+-	.0006	.000+-	.008	.0000+-	.0208
BR	.0000+-	.0007	.000+-	.009	.0000+-	.0242
RB	.0000+-	.0009	.000+-	.012	.0000+-	.0311
SR	.0015+-	.0011	.019+-	.014	.0519+-	.0406
Y	.0021+-	.0012	.027+-	.015	.0726+-	.0459
ZR	.0020+-	.0029	.026+-	.037	.0692+-	.1021
MO	.0000+-	.0046	.000+-	.059	.0000+-	.1591
PD	.0080+-	.0040	.102+-	.051	.2768+-	.1573
AG	.0097+-	.0056	.124+-	.072	.3356+-	.2139
CD	.0014+-	.0072	.018+-	.092	.0484+-	.2494
IN	.0042+-	.0092	.054+-	.118	.1453+-	.3207
SN	.0000+-	.0111	.000+-	.142	.0000+-	.3840
SB	.0000+-	.0143	.000+-	.183	.0000+-	.4947
BA	.0000+-	.0676	.000+-	.865	.0000+-	2.3386
LA	.0504+-	.1098	.645+-	1.405	1.7436+-	3.8276
HG	.0011+-	.0009	.014+-	.012	.0381+-	.0328
PB	.0036+-	.0025	.046+-	.032	.1245+-	.0928

Table 3-11. Metals Filter Analyses April 17, 1990 Site 1

295/01-006 PROTOCOL: 5 SA

SAMPLE ID: MZ164
PARTICLE SIZE: C
ANALYSIS ID: MZ164
04/23/90
EXPOSED AREA: 12.80 SQUARE CM
MASS OF DEPOSIT: 29.+- 10. MICROGRAMS

ELEMENT	UG/CM2	UG/FILTER	PERCENT
AL	.0053+- .0043	.068+- .055	.2339+- .2062
SI	.0260+- .0042	.333+- .054	1.1476+- .4370
P	.0000+- .0016	.000+- .020	.0000+- .0706
S	.0222+- .0086	.284+- .110	.9799+- .5082
CL	.2249+- .0266	2.879+- .340	9.9266+- 3.6187
K	.0121+- .0024	.155+- .031	.5341+- .2125
CA	.0127+- .0020	.163+- .026	.5606+- .2125
TI	.0018+- .0007	.023+- .009	.0794+- .0413
V	.0006+- .0005	.008+- .006	.0265+- .0239
CR	.0017+- .0005	.022+- .006	.0750+- .0340
MN	.0000+- .0006	.000+- .008	.0000+- .0265
FE	.0215+- .0018	.275+- .023	.9490+- .3367
NI	.0006+- .0006	.008+- .008	.0265+- .0280
CU	.0056+- .0007	.072+- .009	.2472+- .0907
ZN	.0011+- .0005	.014+- .006	.0486+- .0277
GA	.0000+- .0004	.000+- .005	.0000+- .0177
AS	.0002+- .0012	.003+- .015	.0088+- .0531
SE	.0000+- .0005	.000+- .006	.0000+- .0221
BR	.0002+- .0006	.003+- .008	.0088+- .0267
RB	.0000+- .0009	.000+- .012	.0000+- .0397
SR	.0000+- .0010	.000+- .013	.0000+- .0441
Y	.0000+- .0011	.000+- .014	.0000+- .0486
ZR	.0006+- .0026	.008+- .033	.0265+- .1151
MO	.0057+- .0044	.073+- .056	.2516+- .2127
PD	.0000+- .0038	.000+- .049	.0000+- .1677
AG	.0044+- .0053	.056+- .068	.1942+- .2433
CD	.0000+- .0063	.000+- .081	.0000+- .2781
IN	.0057+- .0084	.073+- .108	.2516+- .3808
SN	.0049+- .0097	.063+- .124	.2163+- .4346
SB	.0134+- .0131	.172+- .168	.5914+- .6131
BA	.0000+- .0612	.000+- .783	.0000+- 2.7012
LA	.0000+- .1043	.000+- 1.335	.0000+- 4.6036
HG	.0013+- .0009	.017+- .012	.0574+- .0444
PB	.0004+- .0022	.005+- .028	.0177+- .0973

Table 3-12. Metals Filter Analyses April 23, 1990 Site 1

295/01-006 PROTOCOL: 5 SA

SAMPLE ID: MZ165
PARTICLE SIZE: C
ANALYSIS ID: MZ165
04/29/90
EXPOSED AREA: 12.80 SQUARE CM
MASS OF DEPOSIT: 26.+- 10. MICROGRAMS

ELEMENT	UG/CM2	UG/FILTER	PERCENT
AL	.0000+- .0046	.000+- .059	.0000+- .2265
SI	.0196+- .0038	.251+- .049	.9649+- .4156
P	.0000+- .0018	.000+- .023	.0000+- .0886
S	.0197+- .0097	.252+- .124	.9698+- .6060
CL	.2414+- .0286	3.090+- .366	11.8843+- 4.7828
K	.0118+- .0028	.151+- .036	.5809+- .2625
CA	.0104+- .0020	.133+- .026	.5120+- .2202
TI	.0014+- .0009	.018+- .012	.0689+- .0516
V	.0002+- .0006	.003+- .008	.0098+- .0298
CR	.0020+- .0006	.026+- .008	.0985+- .0480
MN	.0000+- .0007	.000+- .009	.0000+- .0345
FE	.0214+- .0018	.274+- .023	1.0535+- .4148
NI	.0024+- .0007	.031+- .009	.1182+- .0570
CU	.0034+- .0006	.044+- .008	.1674+- .0708
ZN	.0018+- .0005	.023+- .006	.0886+- .0420
GA	.0000+- .0004	.000+- .005	.0000+- .0197
AS	.0000+- .0015	.000+- .019	.0000+- .0738
SE	.0000+- .0006	.000+- .008	.0000+- .0295
BR	.0002+- .0007	.003+- .009	.0098+- .0347
RB	.0004+- .0010	.005+- .013	.0197+- .0498
SR	.0022+- .0012	.028+- .015	.1083+- .0723
Y	.0005+- .0013	.006+- .017	.0246+- .0647
ZR	.0000+- .0031	.000+- .040	.0000+- .1526
MO	.0000+- .0052	.000+- .067	.0000+- .2560
PD	.0000+- .0046	.000+- .059	.0000+- .2265
AG	.0000+- .0064	.000+- .082	.0000+- .3151
CD	.0000+- .0079	.000+- .101	.0000+- .3889
IN	.0200+- .0100	.256+- .128	.9846+- .6211
SN	.0030+- .0119	.038+- .152	.1477+- .5886
SB	.0000+- .0153	.000+- .196	.0000+- .7532
BA	.0000+- .0719	.000+- .920	.0000+- 3.5397
LA	.0000+- .1205	.000+- 1.542	.0000+- 5.9323
HG	.0000+- .0009	.000+- .012	.0000+- .0443
PB	.0047+- .0027	.060+- .035	.2314+- .1600

Table 3-13. Metals Filter Analyses April 29, 1990 Site 1

MEASUREMENT TECHNOLOGIES

8" X 10" FILTER GRAVIMETRIC REPORT

Run Day	NEA ID.	FILTER TYPE	TARE WT. GRAMS	GROSS WT. GRAMS	NET WT. MILLIGRAMS
04/05/90	MZ190	TSP	4.6338	4.6474	13.60
04/05/90	MZ191	PM-10	4.6653	4.6765	11.20
04/11/90	MZ192	TSP	4.6377	4.6598	22.10
04/11/90	MZ193	PM-10	4.6499	4.6686	18.70
04/17/90	MZ195	TSP	4.6550	4.6750	20.00
04/17/90	MZ196	PM-10	4.6514	4.6656	14.20
04/23/90	MZ197	TSP	4.6481	4.6665	18.40
04/23/90	MZ198	PM-10	4.6468	4.6598	13.00
04/29/90	MZ199	TSP	4.6416	4.6583	16.70
04/29/90	MZ200	PM-10	4.6598	4.6747	14.80

Table 3-14. Total Suspended Particulates (TSP) and Inhaleable Particulates (PM-10) Loading Monthly Summary Site 1

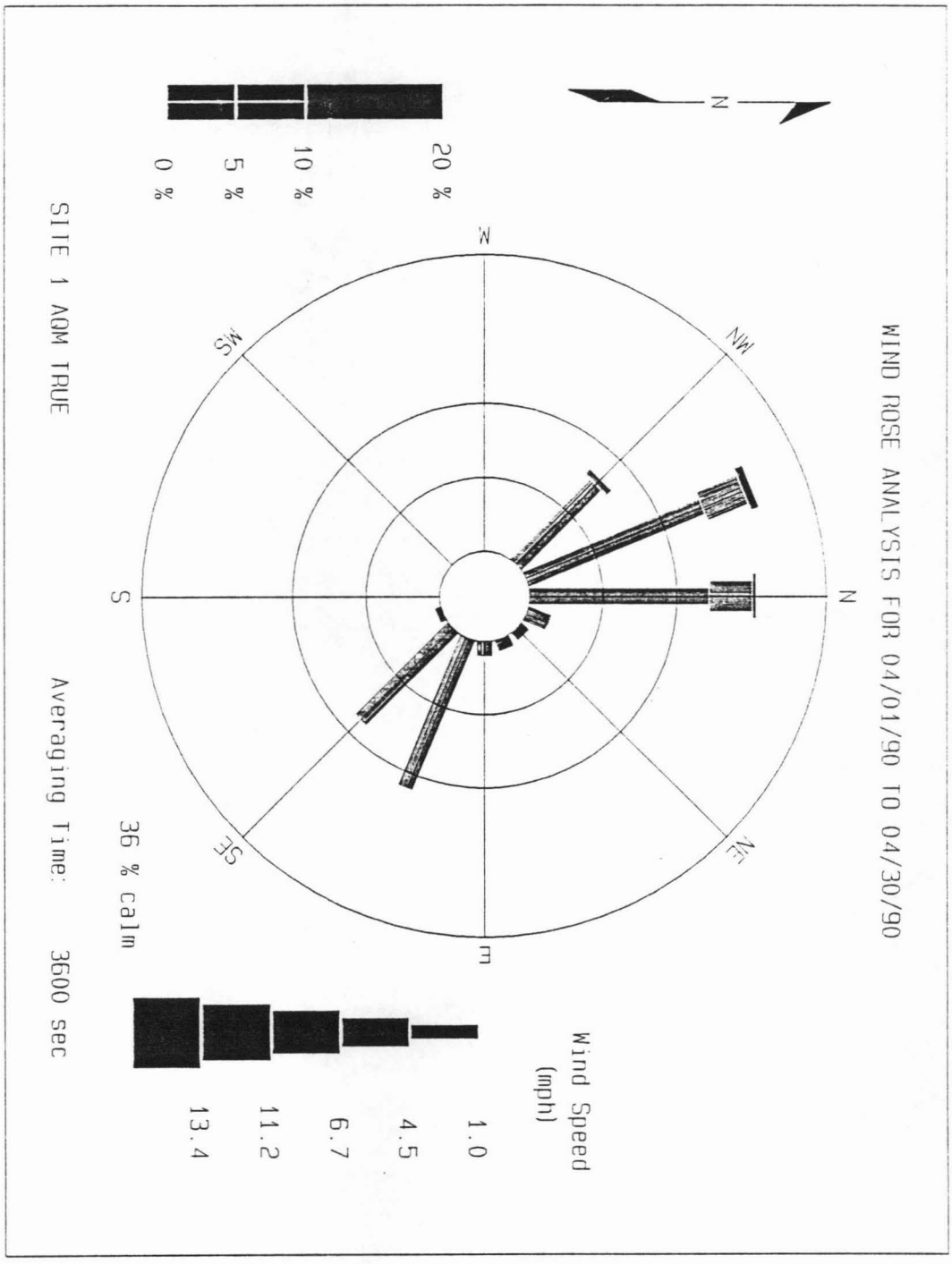

Figure 3-1. Wind Rose Analysis Site 1

WD (DEG) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	360.	04/13/90	16:00:00
Second Highest:	360.	04/17/90	16:00:00
Lowest Value:	0.	04/03/90	05:00:00

Arithmetic Mean:	199.	10.000 Percentile:	0.
Standard Deviation:	130.	20.000 Percentile:	90.
		30.000 Percentile:	120.
Geometric Mean:	97.	40.000 Percentile:	125.
Standard Deviation:	6.	50.000 Percentile:	164.
		60.000 Percentile:	300.
Valid Data:	714	70.000 Percentile:	328.
Invalid Data:	4	80.000 Percentile:	342.
Missing Data:	2	90.000 Percentile:	351.
Data Recovery:	99.17%	100.000 Percentile:	360.

SITE 1 AQM TRUE Averaging Time: 3600 sec

Table 3-15. Wind Direction Summary Statistics Site 1

WS (MPH) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	7.7	04/21/90	08:00:00
Second Highest:	7.1	04/21/90	13:00:00
Lowest Value:	0.0	04/03/90	05:00:00

Arithmetic Mean:	1.9	10.000 Percentile:	0.0
Standard Deviation:	1.7	20.000 Percentile:	0.1
		30.000 Percentile:	0.5
Geometric Mean:	1.4	40.000 Percentile:	1.2
Standard Deviation:	2.9	50.000 Percentile:	1.8
		60.000 Percentile:	2.4
Valid Data:	714	70.000 Percentile:	2.9
Invalid Data:	4	80.000 Percentile:	3.5
Missing Data:	2	90.000 Percentile:	4.1
Data Recovery:	99.17%	100.000 Percentile:	7.7

SITE 1 AQM TRUE Averaging Time: 3600 sec

Table 3-16. Wind Speed Summary Statistics Site 1

Sigé1 (deg) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	125.1	04/10/90	04:00:00		
Second Highest:	124.5	04/06/90	22:00:00		
Lowest Value:	14.3	04/01/90	00:00:00		
Arithmetic Mean:	56.7		10.000	Percentile:	19.1
Standard Deviation:	27.9		20.000	Percentile:	28.6
			30.000	Percentile:	41.9
Geometric Mean:	49.2		40.000	Percentile:	47.3
Standard Deviation:	1.8		50.000	Percentile:	53.4
			60.000	Percentile:	60.0
Valid Data:	714		70.000	Percentile:	70.2
Invalid Data:	4		80.000	Percentile:	82.2
Missing Data:	2		90.000	Percentile:	97.6
Data Recovery:	99.17%		100.000	Percentile:	125.1

SITE 1 AQM TRUE Averaging Time: 3600 sec

Table 3-17. Sigma Theta Summary Statistics Site 1

TEMP (DEG F) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	80.7	04/12/90	13:00:00		
Second Highest:	80.5	04/12/90	12:00:00		
Lowest Value:	59.0	04/05/90	04:00:00		
Arithmetic Mean:	68.3		10.000	Percentile:	62.3
Standard Deviation:	4.7		20.000	Percentile:	64.1
			30.000	Percentile:	65.6
Geometric Mean:	68.2		40.000	Percentile:	66.7
Standard Deviation:	1.1		50.000	Percentile:	67.6
			60.000	Percentile:	68.8
Valid Data:	714		70.000	Percentile:	70.8
Invalid Data:	4		80.000	Percentile:	73.1
Missing Data:	2		90.000	Percentile:	75.0
Data Recovery:	99.17%		100.000	Percentile:	80.7

SITE 1 AQM TRUE Averaging Time: 3600 sec

Table 3-18 Ambient Temperature Summary Statistics Site 1

RAIN (INCH) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	0.22	04/26/90	09:00:00
Second Highest:	0.21	04/24/90	05:00:00
Lowest Value:	0.00	04/01/90	00:00:00

Arithmetic Mean:	0.01	10.000 Percentile:	0.00
Standard Deviation:	0.02	20.000 Percentile:	0.00
		30.000 Percentile:	0.00
Geometric Mean:	0.00	40.000 Percentile:	0.00
Standard Deviation:	1.00	50.000 Percentile:	0.00
		60.000 Percentile:	0.00
Valid Data:	717	70.000 Percentile:	0.00
Invalid Data:	1	80.000 Percentile:	0.00
Missing Data:	2	90.000 Percentile:	0.02
Data Recovery:	99.58%	100.000 Percentile:	0.22

SITE 1 AQM TRUE Averaging Time: 3600 sec

Table 3-19. Precipitation Summary Statistics Site 1

SO2 (PPB) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	16.	04/09/90	08:00:00
Second Highest:	16.	04/11/90	02:00:00
Lowest Value:	0.	04/01/90	00:00:00

Arithmetic Mean:	0.	10.000 Percentile:	0.
Standard Deviation:	1.	20.000 Percentile:	0.
		30.000 Percentile:	0.
Geometric Mean:	1.	40.000 Percentile:	0.
Standard Deviation:	1.	50.000 Percentile:	0.
		60.000 Percentile:	0.
Valid Data:	680	70.000 Percentile:	0.
Invalid Data:	38	80.000 Percentile:	0.
Missing Data:	2	90.000 Percentile:	0.
Data Recovery:	94.44%	100.000 Percentile:	16.

SITE 1 AQM TRUE Averaging Time: 3600 sec

Table 3-20. Sulfur Dioxide Summary Statistics Site 1

H2S (PPB) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	0.	04/01/90	00:00:00		
Second Highest:	0.	04/01/90	01:00:00		
Lowest Value:	0.	04/01/90	00:00:00		
Arithmetic Mean:	0.		10.000 Percentile:		0.
Standard Deviation:	0.		20.000 Percentile:		0.
			30.000 Percentile:		0.
Geometric Mean:	0.		40.000 Percentile:		0.
Standard Deviation:	1.		50.000 Percentile:		0.
			60.000 Percentile:		0.
Valid Data:	708		70.000 Percentile:		0.
Invalid Data:	10		80.000 Percentile:		0.
Missing Data:	2		90.000 Percentile:		0.
Data Recovery:	98.33%		100.000 Percentile:		0.

SITE 1 AQM TRUE Averaging Time: 3600 sec

Table 3-21. Hydrogen Sulfide Summary Statistics Site 1

3.2 Meteorological Monitoring Data Site 2

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 2, MET WD (DEG) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	342	333	332	333	333	336	337	342	340	2	24	38	42	41	33	31	45	34	32	6	359	351	348	344
2	338	339	339	335	334	344	332	336	360	24	52	77	66	59	77	67	54	40	18	358	350	48	46	40
3	27	21	348	327	313	319	349	64	22	19	50	54	72	74	77	69	56	62	7	331	326	328	324	312
4	316	321	333	338	331	323	317	329	10	52	40	75	90	82	69	81	37	330	261	303	311	316	311	275
5	287	291	308	301	310	311	266	299	30	70	73	92	101	81	84	81	77	81	13	323	312	307	238	216
6	229	238	231	0	259	236	245	230	107	125	108	104	131	149	129	131	165	127	123	137	133	136	175	147
7	181	169	175	0	292	282	290	307	28	56	92	97	92	101	101	94	89	81	82	85	80	87	79	90
8	90	0	0	270	277	298	272	280	59	89	79	95	112	123	121	124	111	133	131	146	0	0	248	230
9	175	164	166	177	273	277	286	309	337	8	40	59	73	72	86	98	104	90	82	75	0	75	279	264
10	260	230	219	215	218	233	220	175	159	149	139	138	136	150	148	155	164	168	166	181	167	172	173	179
11	263	156	244	225	220	164	173	178	142	149	134	133	135	129	118	117	117	134	152	149	163	248	266	233
12	121	158	171	180	184	238	262	312	53	69	79	90	78	73	47	37	36	13	19	14	3	355	340	328
13	315	303	312	306	296	299	304	321	346	14	41	55	57	64	52	48	49	36	13	3	7	9	6	353
14	348	343	341	330	310	315	14	311	337	41	353	48	51	53	58	45	50	51	45	52	51	36	40	40
15	35	27	31	40	52	9	349	358	357	39	50	45	33	42	43	38	37	40	44	33	22	11	358	354
16	353	343	329	343	349	339	352	14	6	33	51	56	66	58	63	49	69	62	48	43	25	50	45	19
17	332	320	308	313	311	308	308	317	339	17	22	47	50	37	40	41	41	40	30	23	354	8	1	350
18	348	350	344	336	330	330	338	342	350	358	35	40	48	35	32	37	30	19	26	358	352	353	355	359
19	346	326	330	340	333	343	330	344	343	347	358	30	38	43	53	44	39	20	18	26	17	21	22	22
20	7	2	353	4	345	3	9	0	359	23	33	34	30	34	37	38	15	6	17	6	351	354	350	346
21	347	346	345	328	337	351	342	336	355	10	13	24	26	1	32	42	40	39	41	39	31	20	22	17
22	12	29	22	21	23	18	14	26	33	41	46	43	47	37	42	37	34	30	29	3	338	341	334	336
23	322	329	320	322	330	313	328	315	344	342	78	89	93	96	99	87	88	73	64	26	357	29	51	44
24	336	348	81	64	83	85	79	90	100	103	119	103	112	122	116	116	118	135	110	109	114	98	103	134
25	144	105	104	100	113	110	113	116	136	123	121	126	130	130	130	124	125	130	142	126	126	120	118	133
26	117	139	168	138	124	127	131	132	132	122	123	116	116	117	112	121	126	134	130	158	168	157	162	155
27	146	150	164	212	189	178	195	156	191	196	161	164	168	148	158	132	124	104	93	108	132	144	140	134
28	127	136	129	119	114	114	103	134	142	129	118	116	114	116	119	109	111	116	126	124	112	130	82	116
29	127	69	122	252	95	109	110	104	114	98	102	104	97	101	98	104	105	117	110	98	323	304	329	334
30	307	311	320	309	297	285	304	323	8	48	73	63	83	81	79	81	83	79	56	26	10	34	20	7

Table 3-22. Wind Direction Monthly Summary Site 2

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 2, MET WS (MPH) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	4.7	5.4	6.5	7.2	7.2	7.2	6.2	7.9	7.8	7.1	6.8	7.8	7.5	8.5	8.2	7.6	8.1	6.3	4.5	2.3	2.2	3.3	3.8	3.8
2	5.2	4.5	4.5	4.4	4.2	3.8	4.3	5.2	5.1	5.1	5.3	7.9	7.5	6.9	7.4	6.5	5.6	4.9	3.4	2.7	3.8	4.9	5.1	3.2
3	2.0	1.1	3.2	4.0	4.5	2.3	0.9	1.7	1.9	3.5	3.7	5.4	5.0	5.9	4.4	4.9	4.1	3.0	3.6	4.8	4.5	5.8	3.8	4.6
4	3.5	3.1	2.5	3.7	4.3	3.8	4.1	3.7	3.7	3.8	3.7	3.9	4.3	5.5	5.3	2.9	2.5	2.8	3.2	3.0	4.3	3.4	2.7	3.1
5	2.0	1.7	4.0	3.0	2.4	3.1	3.6	2.6	2.4	3.9	5.5	5.5	6.1	7.6	7.0	5.7	4.7	3.1	0.7	0.8	2.7	2.0	0.8	1.0
6	1.5	2.4	0.3	0.0	0.1	0.2	0.1	0.0	1.9	3.6	5.7	6.0	4.6	4.4	5.1	4.9	2.3	2.2	1.2	0.2	0.3	0.2	0.3	0.1
7	0.5	0.3	0.1	0.0	0.3	1.5	2.2	2.5	1.9	3.4	5.5	7.1	6.7	7.1	6.9	5.9	5.9	6.2	2.9	3.0	2.5	2.3	0.8	0.3
8	0.0	0.0	0.0	0.2	0.5	1.3	1.1	1.1	0.5	1.4	3.8	7.1	5.6	5.8	5.2	5.1	4.0	2.3	0.3	0.1	0.0	0.0	0.5	0.8
9	0.8	1.6	0.7	0.4	0.7	1.5	3.6	4.5	3.7	4.1	4.2	4.0	7.3	6.7	6.8	6.8	5.6	4.3	1.6	0.0	0.0	0.1	0.8	1.2
10	0.6	0.1	0.1	0.7	0.1	2.3	2.2	0.8	3.4	4.2	5.7	6.2	6.2	7.7	6.3	5.2	6.1	4.0	3.0	1.5	2.6	2.6	1.7	1.3
11	1.5	0.5	2.1	0.8	1.7	1.2	2.9	2.7	2.4	3.9	4.8	5.2	5.1	5.3	6.3	5.7	4.2	3.4	3.0	1.7	0.3	0.1	0.5	0.1
12	0.1	0.2	0.3	0.3	0.1	0.2	0.9	0.4	2.5	3.8	4.4	6.9	7.4	7.7	6.7	6.0	6.2	4.4	3.3	3.9	3.3	4.5	5.1	3.5
13	2.6	2.9	2.3	3.6	2.1	2.6	4.6	4.2	6.1	5.1	5.0	7.3	7.0	7.9	7.3	7.6	6.6	6.0	3.0	2.5	2.7	2.2	3.4	4.1
14	5.0	5.8	5.9	3.5	2.2	1.4	0.8	2.0	4.1	3.5	2.9	4.2	5.3	5.9	6.3	6.8	5.9	6.1	4.9	5.3	5.6	5.8	5.8	5.7
15	4.6	3.3	1.5	3.2	3.7	2.2	4.2	4.8	4.8	5.4	6.4	7.2	6.5	7.7	7.7	7.6	6.8	6.9	6.2	5.6	3.9	2.9	4.1	3.5
16	3.0	3.5	4.8	3.8	3.8	3.8	3.3	3.0	4.0	4.4	5.5	7.1	7.4	7.7	8.1	7.2	6.8	5.3	3.2	2.3	1.8	3.0	2.4	2.0
17	2.6	2.3	5.3	4.9	5.8	6.0	4.5	2.5	3.9	4.4	5.0	6.6	7.4	7.1	6.9	7.3	6.7	5.7	4.4	3.6	2.8	2.7	1.8	3.2
18	4.8	5.6	6.3	6.0	5.8	5.3	4.4	5.3	6.0	6.7	7.5	7.8	8.9	7.9	8.3	6.9	6.7	5.6	4.9	4.6	4.6	4.9	4.8	3.9
19	4.9	5.5	6.1	5.0	5.9	5.4	5.7	3.8	5.0	6.4	5.8	6.4	6.8	7.9	8.3	7.9	6.9	4.5	4.0	4.4	4.0	2.7	2.4	3.1
20	4.1	4.1	5.5	4.7	6.7	5.7	4.8	5.7	6.1	6.9	8.3	9.4	9.1	9.5	9.8	9.8	7.7	6.1	5.4	5.2	6.2	5.5	6.4	5.9
21	6.0	6.0	5.9	6.0	6.9	5.5	6.7	7.4	8.2	6.9	8.3	8.2	7.0	7.4	7.0	8.3	7.5	7.3	7.1	6.5	5.6	4.6	3.7	3.3
22	4.6	5.4	5.2	4.3	3.9	3.7	4.2	6.0	7.5	9.2	10.5	9.5	9.4	8.6	9.2	8.3	7.6	6.5	3.5	2.4	3.0	3.3	3.6	4.6
23	4.9	5.2	4.7	5.3	5.2	5.7	4.2	4.1	3.1	3.6	5.2	7.6	8.1	8.0	7.4	6.8	6.1	5.3	3.1	1.5	0.8	2.0	2.7	1.5
24	1.3	1.0	1.7	4.6	5.9	4.7	4.8	5.7	6.4	6.0	4.7	6.6	6.4	4.6	7.0	6.5	4.0	2.7	2.8	0.5	0.1	3.2	2.7	1.0
25	0.8	3.3	3.4	1.9	2.2	3.4	3.5	5.0	5.0	4.2	6.1	6.4	6.3	6.0	5.8	5.3	4.4	3.1	2.3	2.0	3.2	3.7	4.3	4.0
26	4.4	4.3	3.8	2.3	3.2	2.6	2.7	3.6	3.9	3.2	4.1	6.2	5.6	5.6	6.4	6.6	4.4	2.6	1.1	0.3	0.1	0.9	0.6	1.1
27	0.6	1.6	1.3	0.6	1.2	2.1	0.7	1.5	2.5	3.1	4.2	5.6	5.6	6.3	5.4	6.2	5.2	3.2	2.9	2.3	1.8	2.6	1.0	1.5
28	2.0	3.0	2.9	4.0	3.8	3.9	3.4	2.4	2.4	3.3	4.8	5.4	5.5	5.4	5.9	4.8	5.1	4.0	1.8	0.2	0.5	0.1	0.0	0.4
29	0.3	0.1	0.6	0.1	1.1	2.1	2.3	4.0	4.3	5.5	5.2	6.9	7.3	7.6	7.0	6.7	6.0	4.4	1.2	0.4	0.4	1.8	1.0	0.3
30	1.6	1.4	2.2	3.1	2.9	2.5	2.6	2.9	1.9	3.9	4.3	6.0	7.2	8.6	7.6	8.1	8.0	6.1	2.9	1.6	1.2	1.9	1.2	1.1

Table 3-23. Wind Speed Monthly Summary Site 2

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 2, MET Sigθ1 (deg) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	22.9	16.6	16.5	16.0	16.4	16.9	22.0	25.6	21.8	31.9	32.4	26.2	23.2	24.6	27.8	27.5	25.7	24.9	24.7	30.1	34.0	28.2	28.2	24.7
2	19.1	18.0	18.8	16.1	18.8	26.8	17.7	16.4	32.2	28.2	28.6	22.7	24.0	24.9	24.0	24.1	23.4	20.2	28.5	29.7	28.6	22.4	23.0	23.6
3	25.3	27.1	25.8	15.7	23.4	35.0	37.7	31.8	26.8	29.7	34.2	22.5	22.4	22.3	30.3	21.5	21.9	24.2	32.6	17.4	18.1	17.0	14.7	10.9
4	29.7	17.5	29.3	22.9	18.7	14.6	11.7	17.4	31.5	27.0	29.0	27.4	23.8	20.3	19.7	24.2	24.3	21.2	35.6	25.7	11.6	10.6	20.1	26.9
5	30.9	26.7	13.3	22.1	37.9	18.6	22.7	26.7	33.3	25.4	25.3	18.3	25.1	22.7	22.6	21.0	19.1	19.1	25.7	28.5	9.9	32.3	78.0	36.7
6	18.8	31.4	72.3	****	64.7	74.6	74.2	74.8	31.1	34.4	31.7	25.3	39.6	36.3	30.1	30.2	35.7	29.3	24.1	18.6	78.7	67.3	14.1	73.7
7	12.2	12.7	97.6	****	72.0	44.5	23.1	16.8	36.9	25.9	26.8	24.8	24.7	24.2	24.6	22.9	19.8	16.8	17.7	19.7	19.4	19.8	39.0	25.7
8	84.0	99.7	****	48.1	58.1	18.7	15.9	29.1	46.5	52.6	50.6	26.9	38.0	40.8	43.5	33.5	24.0	28.0	32.4	80.8	85.7	****	13.8	15.4
9	80.5	22.3	20.1	18.5	37.5	25.8	14.7	15.0	24.2	34.0	34.0	29.2	21.8	25.2	23.5	25.9	23.0	22.3	19.6	74.6	99.2	74.2	26.5	18.1
10	66.8	98.4	71.7	15.2	82.4	12.4	15.3	33.4	40.1	38.8	38.3	38.8	40.6	35.5	41.5	40.5	38.3	41.1	34.6	30.8	33.0	37.7	34.0	35.7
11	27.9	39.6	18.6	43.2	30.6	28.5	39.5	39.5	50.4	35.0	33.5	35.3	32.6	35.8	30.7	26.0	29.0	33.3	31.4	31.8	32.9	82.9	95.1	79.4
12	****	79.4	26.5	82.7	85.1	96.1	18.8	30.7	33.5	31.3	32.2	23.7	24.6	24.1	30.6	31.2	26.4	30.8	28.6	32.3	33.4	30.9	23.0	16.9
13	15.0	13.7	13.8	12.8	15.5	14.4	12.7	16.6	23.1	32.9	30.6	28.4	28.2	25.3	23.6	23.0	24.0	23.7	27.1	28.9	30.2	31.7	30.7	28.6
14	26.0	23.7	21.2	17.5	39.1	45.5	44.6	26.8	27.5	24.7	46.3	24.3	24.8	21.6	23.6	22.4	22.7	18.5	20.5	24.9	21.6	25.6	24.2	22.6
15	24.5	25.4	28.9	22.7	20.4	23.8	26.0	30.8	32.6	27.0	34.6	27.1	25.9	25.2	23.8	25.9	24.0	21.4	21.8	23.5	27.8	27.8	27.3	25.3
16	25.1	20.3	14.7	26.7	23.8	22.1	29.5	29.8	29.3	30.9	30.3	23.7	22.7	21.6	22.5	23.6	21.9	21.4	18.8	21.3	26.5	18.5	18.5	17.9
17	14.6	12.0	9.4	13.0	10.6	11.2	15.2	26.5	28.5	31.3	30.4	25.2	22.3	24.6	24.0	22.5	23.1	23.5	24.5	25.7	27.8	30.1	26.0	22.6
18	21.0	23.2	19.2	15.3	16.8	16.4	19.1	20.2	27.6	30.1	26.5	28.5	26.4	29.3	27.9	26.3	27.9	30.1	28.4	25.2	24.2	26.4	25.7	28.7
19	20.3	14.6	15.2	24.6	17.5	20.8	16.0	31.1	21.8	25.9	28.5	29.6	25.7	24.1	20.9	21.9	26.4	33.0	27.9	28.9	29.2	29.2	30.0	25.6
20	26.3	28.9	25.4	27.9	20.4	27.6	29.7	29.0	30.7	32.4	26.2	27.0	31.4	26.2	27.5	24.2	29.7	29.6	30.8	28.6	23.0	25.1	23.2	20.2
21	20.9	20.8	23.7	17.1	18.0	24.3	21.5	19.4	28.2	31.7	32.2	31.4	31.1	30.8	29.1	22.3	23.6	24.7	22.7	21.8	30.3	29.0	26.4	26.7
22	31.8	29.2	27.4	28.5	28.6	29.5	28.0	28.0	27.1	24.3	22.9	25.2	22.9	26.8	25.1	28.5	26.0	28.4	24.8	22.1	34.2	18.1	17.0	16.3
23	15.7	15.8	15.4	16.1	17.4	16.4	23.0	16.9	24.1	29.7	26.5	20.7	22.9	22.9	24.7	23.1	22.6	19.2	19.4	20.9	28.4	35.8	19.1	27.3
24	23.0	45.1	39.0	27.0	22.9	22.3	19.6	21.2	24.2	24.2	33.9	24.8	28.7	42.1	27.8	28.9	33.1	27.6	23.5	32.0	63.2	24.2	78.5	34.1
25	31.9	26.2	25.2	26.8	43.5	24.3	26.5	28.1	30.0	30.8	31.2	30.0	34.1	31.9	33.7	29.0	31.7	31.9	32.3	35.0	28.1	30.1	30.1	33.4
26	26.8	35.2	35.0	33.1	31.3	30.8	33.6	34.1	32.2	27.3	44.6	27.3	29.6	29.2	26.3	30.9	35.2	29.7	23.7	20.9	77.2	17.2	19.4	20.5
27	21.9	22.1	31.3	21.2	20.5	21.2	25.3	37.7	37.7	46.7	45.5	41.3	44.8	39.9	47.4	34.6	30.8	28.7	20.8	24.6	34.4	33.4	32.9	29.5
28	31.9	35.0	34.4	29.0	28.0	26.8	21.8	38.4	37.2	37.3	30.4	28.9	32.8	27.3	27.4	31.5	25.7	28.7	25.7	31.8	79.8	58.9	77.0	62.4
29	27.1	65.2	50.3	40.0	46.2	28.6	40.6	22.5	28.0	26.5	32.2	29.3	28.2	26.3	26.5	26.4	30.6	26.8	25.3	28.4	40.0	13.5	42.4	14.8
30	13.1	15.8	16.9	13.3	13.8	15.2	17.0	17.4	41.5	23.6	25.8	28.5	24.6	23.5	23.7	22.3	20.5	19.2	19.2	19.8	23.7	21.8	18.6	17.1

Table 3-24. Sigma Theta Monthly Summary Site 2

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 2, MET VWS (MPH) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0.0	0.0	0.0	0.0	-0.1	0.0	0.1	0.1	0.1	0.0	-0.2	0.0	0.0	0.0	-0.2	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.1	0.0
2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	-0.1	-0.3	-0.2	-0.3	-0.2	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.1	0.1	0.0	-0.1	0.0	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.1	0.1	0.0	0.1	0.2
4	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.0	-0.1	0.0	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.1	-0.6	-0.3	0.1	0.1	-0.1	-0.7
5	-0.2	-0.2	0.0	0.0	0.0	0.0	-0.6	-0.5	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.2	-0.2	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.3	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	0.0	-0.1	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	-0.2	-0.1	-0.1	-0.2	-0.2	-0.3	-0.1	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.3	0.1	0.6	0.6	0.4	0.4	0.4	0.2	0.1	0.1	0.2	0.1	0.1
11	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.2	-0.2	-0.2	0.0	-0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
13	0.0	0.0	0.0	0.1	-0.1	0.0	0.2	0.0	0.1	0.2	-0.1	-0.1	-0.2	-0.4	-0.2	0.0	-0.3	0.1	0.0	0.0	0.1	0.1	0.0	0.0
14	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	0.0	0.0	-0.1
15	0.0	0.1	0.0	0.0	-0.1	0.1	0.0	0.0	-0.1	-0.1	0.0	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1
16	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1	-0.1	-0.3	-0.2	-0.3	-0.3	0.0	0.0	0.1	0.0	0.0	0.0
17	0.0	0.0	0.2	0.1	0.2	0.3	-0.1	0.0	0.1	0.0	-0.1	-0.2	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
18	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.3	-0.2	0.0	-0.1	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
19	0.1	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.1	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.1
20	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	-0.1	0.0	-0.1	-0.1	0.0	-0.2	-0.2	-0.1	-0.1	-0.2	0.1	0.1	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	0.0	0.0	0.1	0.0	-0.2	-0.2	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	0.0	-0.1	0.0	0.1	0.0
22	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	-0.1	-0.2	-0.4	0.0	-0.2	-0.2	-0.1	-0.2	-0.1	-0.1	0.0	0.0	-0.1	0.0	0.0	-0.1
23	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.1	0.0	0.1	-0.1	-0.1	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	-0.1	-0.1	0.0	-0.1	-0.1	0.0	0.1	0.2	0.0	0.1	0.2	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1
25	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.4	0.2	0.1	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2
26	0.2	0.3	0.4	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1
27	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.3	0.3	0.5	0.6	0.5	0.6	0.7	0.2	0.2	0.0	0.0	0.0	0.1	0.2	0.1	0.1
28	0.1	0.2	0.2	0.2	0.1	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.2	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0

Table 3-25. Vertical Wind Speed Monthly Summary Site 2

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 2, MET SIG W (DEG) DATA FOR: APR 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.8	0.6	0.6	0.3	0.3	0.3	0.3	0.2
2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.6	0.7	0.6	0.6	0.7	0.6	0.5	0.6	0.5	0.5	0.5	0.3	0.3	0.5	0.5	0.3
3	0.2	0.2	0.4	0.3	0.4	0.2	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.3	0.3	0.4	0.3	0.5	0.3	0.4	0.3	0.3	0.3
4	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.1	0.1	0.3	0.2	0.1	0.1
5	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.4	0.3	0.4	0.4	0.6	0.6	0.6	0.4	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.0
6	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.5	0.4	0.2	0.1	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.2	0.2	0.2	0.2	0.1	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.4	0.5	0.7	0.7	0.8	0.8	0.7	0.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0
9	0.1	0.3	0.2	0.1	0.1	0.1	0.2	0.3	0.3	0.5	0.6	0.4	0.5	0.5	0.6	0.7	0.5	0.4	0.1	0.1	0.0	0.0	0.1	0.1
10	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.6	0.8	0.9	1.0	1.0	1.2	1.2	1.0	1.0	0.7	0.5	0.3	0.4	0.5	0.3	0.3
11	0.2	0.1	0.1	0.1	0.1	0.2	0.5	0.5	0.5	0.6	0.7	0.8	0.7	0.8	0.8	0.6	0.6	0.5	0.5	0.3	0.1	0.1	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.6	0.6	0.5	0.6	0.7	0.8	0.7	0.7	0.5	0.6	0.5	0.5	0.3	0.2
13	0.2	0.2	0.1	0.2	0.1	0.1	0.3	0.3	0.5	0.8	0.6	0.7	0.7	0.6	0.6	0.7	0.6	0.7	0.4	0.3	0.4	0.4	0.4	0.5
14	0.5	0.4	0.4	0.2	0.2	0.1	0.1	0.2	0.4	0.4	0.4	0.4	0.5	0.6	0.5	0.6	0.6	0.5	0.4	0.5	0.5	0.7	0.7	0.6
15	0.5	0.4	0.2	0.3	0.3	0.3	0.3	0.5	0.6	0.5	1.4	0.7	0.7	0.8	0.8	0.8	0.7	0.8	0.6	0.6	0.6	0.4	0.5	0.3
16	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.6	0.5	0.6	0.6	0.7	0.6	0.7	0.6	0.4	0.3	0.2	0.3	0.2	0.1	0.1
17	0.1	0.1	0.3	0.3	0.3	0.4	0.3	0.2	0.4	0.6	0.6	0.6	0.6	0.8	0.7	0.7	0.7	0.6	0.6	0.5	0.3	0.4	0.2	0.2
18	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.5	0.8	0.8	0.9	0.8	0.8	0.9	0.8	0.8	0.8	0.6	0.5	0.4	0.5	0.4	0.4
19	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.4	0.5	0.7	0.7	0.8	0.7	0.7	0.8	0.7	0.6	0.5	0.5	0.5	0.4	0.4	0.4
20	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.8	0.6	0.8	0.9	1.1	1.0	1.2	0.9	1.1	0.9	0.7	0.7	0.7	0.6	0.5	0.5	0.4
21	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.8	0.9	0.9	1.0	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.4
22	0.6	0.7	0.6	0.6	0.6	0.5	0.5	0.8	0.8	0.9	0.9	1.0	0.9	0.8	0.9	0.8	0.8	0.8	0.5	0.2	0.2	0.2	0.3	0.2
23	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.6	0.5	0.4	0.2	0.2	0.1	0.3	0.3	0.2
24	0.2	0.2	0.3	0.5	0.5	0.5	0.4	0.5	0.7	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.6	0.5	0.4	0.1	0.1	0.4	0.4	0.3
25	0.3	0.4	0.4	0.3	0.4	0.4	0.5	0.7	0.8	0.6	0.8	0.9	0.9	0.9	0.8	0.7	0.7	0.5	0.4	0.4	0.5	0.6	0.6	0.6
26	0.6	0.7	0.7	0.5	0.6	0.5	0.5	0.6	0.6	0.4	0.7	0.9	0.7	0.7	0.8	0.8	0.7	0.4	0.2	0.1	0.1	0.2	0.1	0.2
27	0.1	0.2	0.3	0.1	0.2	0.3	0.1	0.4	0.6	0.6	0.9	1.0	1.1	1.1	1.0	0.9	0.7	0.4	0.3	0.3	0.4	0.5	0.3	0.4
28	0.4	0.6	0.5	0.7	0.6	0.6	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.7	0.8	0.6	0.6	0.5	0.3	0.1	0.2	0.1	0.1	0.1
29	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.6	0.6	0.6	0.7	0.7	0.9	0.7	0.6	0.7	0.5	0.2	0.1	0.0	0.0	0.1	0.1
30	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.3	0.4	0.3	0.5	0.6	0.7	0.6	0.6	0.6	0.4	0.3	0.2	0.2	0.2	0.1	0.1

Table 3-26. Sigma W Monthly Summary Site 2

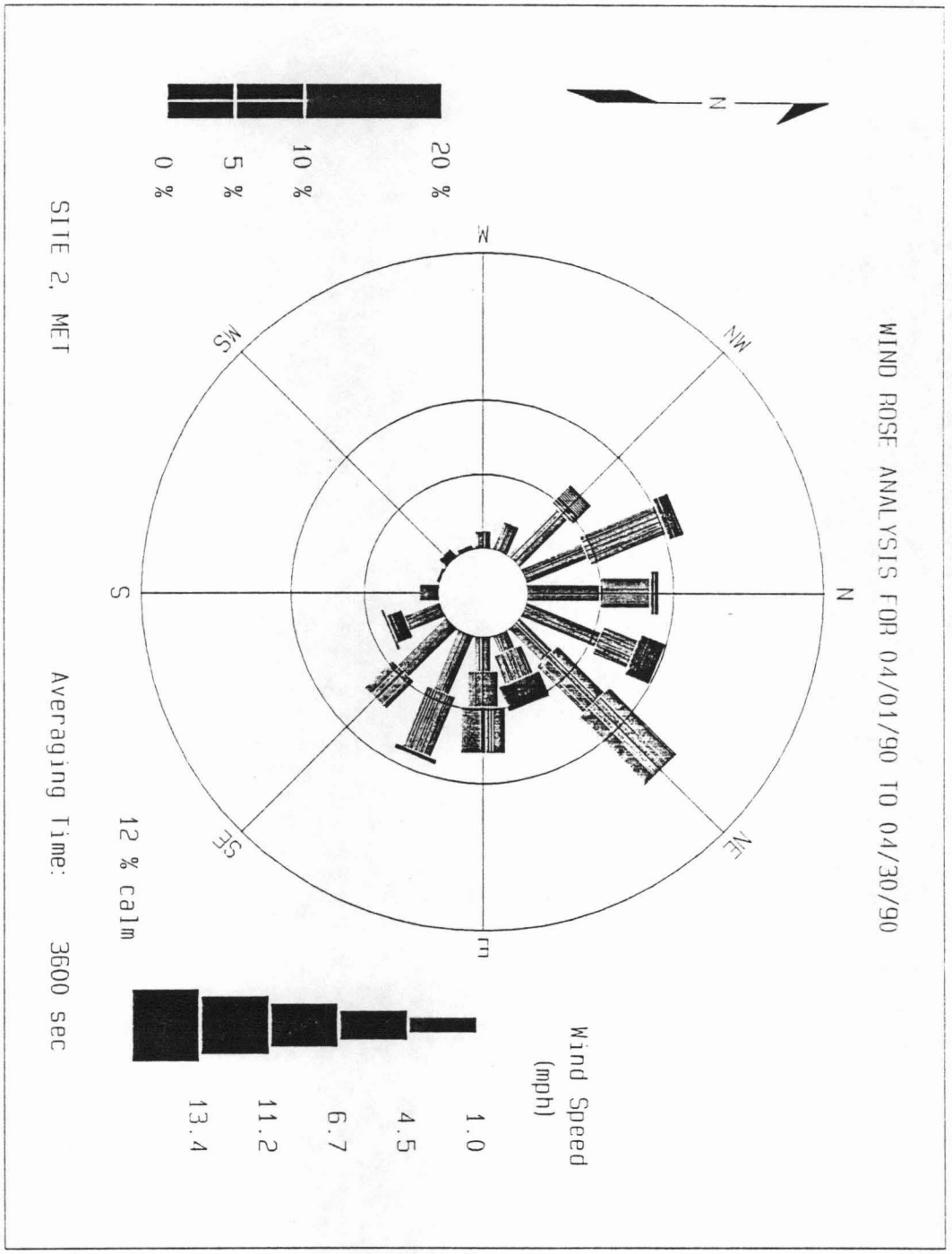

Figure 3-2. Wind Rose Analysis Site 2

WD (DEG) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	360.	04/02/90	08:00:00
Second Highest:	359.	04/01/90	20:00:00
Lowest Value:	0.	04/06/90	03:00:00
Arithmetic Mean:	153.		
Standard Deviation:	119.		
Geometric Mean:	96.		
Standard Deviation:	3.		
Valid Data:	720		
Invalid Data:	0		
Missing Data:	0		
Data Recovery:	100.00%		

10.000 Percentile:	23.
20.000 Percentile:	40.
30.000 Percentile:	62.
40.000 Percentile:	92.
50.000 Percentile:	117.
60.000 Percentile:	138.
70.000 Percentile:	220.
80.000 Percentile:	312.
90.000 Percentile:	339.
100.000 Percentile:	360.

SITE 2, MET Averaging Time: 3600 sec

Table 3-27. Wind Direction Summary Statistics Site 2

WS (MPH) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	10.5	04/22/90	10:00:00
Second Highest:	9.8	04/20/90	14:00:00
Lowest Value:	0.0	04/06/90	03:00:00
Arithmetic Mean:	4.1		
Standard Deviation:	2.3		
Geometric Mean:	3.1		
Standard Deviation:	2.7		
Valid Data:	720		
Invalid Data:	0		
Missing Data:	0		
Data Recovery:	100.00%		

10.000 Percentile:	0.7
20.000 Percentile:	1.9
30.000 Percentile:	2.7
40.000 Percentile:	3.5
50.000 Percentile:	4.2
60.000 Percentile:	4.9
70.000 Percentile:	5.6
80.000 Percentile:	6.2
90.000 Percentile:	7.2
100.000 Percentile:	10.5

SITE 2, MET Averaging Time: 3600 sec

Table 3-28. Wind Speed Summary Statistics Site 2

Sigé1 (deg) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	124.4	04/07/90	03:00:00		
Second Highest:	115.3	04/06/90	03:00:00		
Lowest Value:	9.4	04/17/90	02:00:00		
Arithmetic Mean:	29.7		10.000	Percentile:	17.1
Standard Deviation:	15.5		20.000	Percentile:	20.9
			30.000	Percentile:	23.0
Geometric Mean:	27.2		40.000	Percentile:	24.7
Standard Deviation:	1.5		50.000	Percentile:	26.5
			60.000	Percentile:	28.4
Valid Data:	720		70.000	Percentile:	30.3
Invalid Data:	0		80.000	Percentile:	33.1
Missing Data:	0		90.000	Percentile:	40.6
Data Recovery:	100.00%		100.000	Percentile:	124.4

SITE 2, MET Averaging Time: 3600 sec

Table 3-29. Sigma Theta Summary Statistics Site 2

VWS (MPH) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	0.7	04/27/90	14:00:00		
Second Highest:	0.6	04/27/90	11:00:00		
Lowest Value:	-0.7	04/04/90	23:00:00		
Arithmetic Mean:	0.0		10.000	Percentile:	-0.1
Standard Deviation:	0.1		20.000	Percentile:	-0.1
			30.000	Percentile:	0.0
Geometric Mean:	0.0		40.000	Percentile:	0.0
Standard Deviation:	1.0		50.000	Percentile:	0.0
			60.000	Percentile:	0.0
Valid Data:	720		70.000	Percentile:	0.0
Invalid Data:	0		80.000	Percentile:	0.1
Missing Data:	0		90.000	Percentile:	0.2
Data Recovery:	100.00%		100.000	Percentile:	0.7

SITE 2, MET Averaging Time: 3600 sec

Table 3-30. Vertical Wind Speed Summary Statistics Site 2

SIG W (DEG) SUMMARY STATISTICS FOR 04/01/90 - 04/30/90

Highest Value:	1.383	04/15/90	10:00:00
Second Highest:	1.185	04/20/90	13:00:00
Lowest Value:	0.000	04/07/90	03:00:00

Arithmetic Mean:	0.435	10.000 Percentile:	0.099
Standard Deviation:	0.259	20.000 Percentile:	0.178
		30.000 Percentile:	0.277
Geometric Mean:	0.000	40.000 Percentile:	0.336
Standard Deviation:	1.000	50.000 Percentile:	0.415
		60.000 Percentile:	0.494
Valid Data:	720	70.000 Percentile:	0.573
Invalid Data:	0	80.000 Percentile:	0.672
Missing Data:	0	90.000 Percentile:	0.770
Data Recovery:	100.00%	100.000 Percentile:	1.383

SITE 2, MET Averaging Time: 3600 sec

Table 3-31. Sigma W Summary Statistics Site 2

MEASUREMENT TECHNOLOGIES

141 Suburban Rd., Suite D-1
San Luis Obispo, CA 93401
(805) 549-0595 FAX (805) 549-0398